

(a) providing an ABC1 polypeptide capable of interacting with an HDL particle or a constituent of an HDL particle;

(b) contacting said ABC1 polypeptide with said HDL particle or said constituent of an HDL particle and contacting said ABC1 polypeptide with said candidate compound; and

(c) measuring interaction of said HDL particle or said constituent of an HDL particle with said ABC1 polypeptide, wherein interaction of said HDL particle or said constituent of an HDL particle with said ABC1 polypeptide indicates that said candidate compound modulates ABC1 biological activity.

89. A method for determining whether a candidate compound is useful in modulating HDL-cholesterol levels, said method comprising the steps of:

(a) providing a cell expressing an ABC1 polypeptide capable of transporting a lipid;

(b) contacting said cell with said candidate compound; and

(c) measuring the levels or transport of said lipid, wherein altered lipid levels or lipid transport, relative to a cell not contacted with said compound, indicates that said candidate compound is useful in modulating HDL-cholesterol levels.

90. A method for determining whether a candidate compound modulates ABC1 biological activity, said method comprising the steps of:

(a) providing a cell expressing a recombinant ABC1 polypeptide capable of transporting a lipid;

(b) contacting said cell with said candidate compound; and

(c) measuring the levels or transport of said lipid, wherein altered lipid levels or lipid transport, relative to a cell not contacted with said compound, indicates that said candidate compound modulates ABC1 biological activity.

91. A method for determining whether a candidate compound is useful in modulating HDL-cholesterol levels, said method comprising the steps of:

- (a) providing a cell expressing an ABC1 polypeptide having ABC1 biological activity;
- (b) contacting said cell with said candidate compound; and
- (c) measuring ABC1 biological activity, wherein altered ABC1 biological activity, relative to a cell not contacted with said compound, indicates that said candidate compound is useful in modulating HDL-cholesterol levels.

92. A method for determining whether a candidate compound modulates ABC1 biological activity, said method comprising the steps of:

- (a) providing a cell expressing a recombinant ABC1 polypeptide comprising amino acids 1 to 60 of SEQ ID NO: 1 and having ABC1 biological activity;
- (b) contacting said cell with said candidate compound; and
- (c) measuring ABC1 biological activity, wherein altered ABC1 biological activity, relative to a cell not contacted with said compound, indicates that said candidate compound modulates ABC1 biological activity.

93. The method of claim 91 or 92, wherein said ABC1 biological activity is transport of lipid or interleukin-1.

94. The method of claim 91 or 92, wherein said ABC1 biological activity is binding or hydrolysis of ATP by the ABC1 polypeptide.

95. A method for determining whether a candidate compound is useful in modulating HDL-cholesterol levels, said method comprising the steps of:

- (a) providing an ABC1 polypeptide;
- (b) contacting said ABC1 polypeptide with said candidate compound; and
- (c) measuring binding of said ABC1 polypeptide to said candidate compound, wherein binding of said ABC1 polypeptide to said compound indicates that said candidate compound is useful in modulating HDL-cholesterol levels.

96. A method for determining whether candidate compound modulates ABC1 biological activity, said method comprising the steps of:

- (a) providing a recombinant ABC1 polypeptide comprising amino acids 1 to 60 of SEQ ID NO: 1;
- (b) contacting said ABC1 polypeptide with said candidate compound; and
- (c) measuring binding of said ABC1 polypeptide to said candidate compound, wherein binding of said ABC1 polypeptide to said compound indicates that said candidate compound modulates ABC1 biological activity.

97. A method for determining whether candidate compound modulates ABC1 biological activity, said method comprising the steps of:

- (a) providing an ABC1 polypeptide;
- (b) contacting said ABC1 polypeptide with said candidate compound; and
- (c) measuring interaction of said ABC1 polypeptide with a casein kinase, wherein an alteration in the interaction of said ABC1 polypeptide with said casein kinase indicates that said candidate compound modulates ABC1 biological activity.

98. A method for determining whether a candidate compound is useful in modulating HDL-cholesterol levels, said method comprising the steps of:

- (a) providing an ABC1 polypeptide having ABC1 biological activity in a lipid membrane;
- (b) contacting said ABC1 polypeptide with said candidate compound; and
- (c) measuring ABC1-mediated lipid transport across said lipid membrane, wherein a change in lipid transport, relative to ABC1-mediated lipid transport across said lipid membrane in the absence of said compound, indicates that said candidate compound is useful in modulating HDL-cholesterol levels.

99. A method for determining whether a candidate compound modulates ABC1 biological activity, said method comprising the steps of:

- (a) providing a recombinant ABC1 polypeptide having ABC1 biological activity in a lipid membrane;

(b) contacting said ABC1 polypeptide with said candidate compound; and
(c) measuring ABC1-mediated lipid transport across said lipid membrane,
wherein a change in lipid transport, relative to ABC1-mediated lipid transport across said lipid membrane in the absence of said compound, indicates that said candidate compound modulates ABC1 biological activity.

100. The method of any one of claims 87-90, 98, or 99, wherein said lipid or said constituent of an HDL particle is a phospholipid or cholesterol.

101. The method of claim 100, wherein said cholesterol is HDL cholesterol.

102. The method of any one of claims 87, 88, 91, 92, or 95-97, wherein said ABC1 polypeptide is detectably labeled.

103. The method of any one of claims 87-90, 93, 98, or 99, wherein said lipid, said cholesterol, said HDL particle, or said constituent of an HDL particle is detectably labeled.

104. The method of any one of claims 87-91 or 95-99, wherein said ABC1 polypeptide comprises amino acids 1 to 60 of SEQ ID NO: 1.

105. The method of any one of claims 87, 88, or 95-99, wherein said method is performed in a cell free assay.

106. The method of any one of claims 87, 88, or 95-99, wherein said ABC1 polypeptide is in a cell.

107. The method of claim 106, wherein said cell is from a WHAM chicken.

108. The method of claim 106, wherein said cell is in a human or in a non-human mammal.

109. The method of any one of claims 89-92, wherein said cell is from a WHAM chicken.

110. The method of any one of claims 89-92, wherein said cell is in a human or in a non-human mammal.

111. The method of claim 87-89, 91, 95, 97, or 98, wherein said ABC1 polypeptide is a recombinant polypeptide.

REMARKS

The new claims find support throughout the specification, for example, as follows: claims 87 and 88, pages 61 and 63-65; claims 89 and 90, pages 15, 57, 71, and 72; claim 91, page 8; claim 92, pages 5, 8, and 57; claims 93 and 94, page 15; claim 95, pages 8 and 9; claim 96, pages 5, 8, 9, and 57; claim 97, pages 63-65 and 74; claims 98 and 99, pages 71 and